

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-14 (Cancelled).

15. (New) An electrical combination comprising:
- a battery charger including a charger housing and a charging circuit supported by the charger housing and selectively electrically connectable with a power source, the charger housing including a charger support portion;
 - a battery electrically connectable with the charging circuit such that the battery selectively supplies power to the charging circuit, the battery including an insertion portion; and
 - an adapter separate from and connectable between the charger housing and the battery to support the battery on the charger housing and to electrically connect the battery with the charging circuit, the adapter including an adapter housing defining an opening, the insertion portion being insertable into the opening along an opening axis to support the battery on the adapter, the adapter housing further including an adapter support portion connectable to the charger support portion along an adapter attachment axis, the opening axis being generally parallel with the adapter attachment axis.
16. (New) The combination as set forth in Claim 15, wherein the charger support portion includes a charger opening defining an inner surface, wherein the adapter housing is configured as a sleeve member insertable between an outer surface of the insertion portion of the battery and the inner surface of the charger opening to connect the adapter to the battery charger.
17. (New) The combination as set forth in Claim 15 and further comprising a locking assembly for locking the battery to the adapter, the locking assembly including
- a locking member movable between a locked position, in which the battery is locked to the adapter, and an unlocked position, and
 - an actuating member operable to move the locking member between the locked position and the unlocked position.

18. (New) The combination as set forth in Claim 15 and further comprising a locking assembly for locking the adapter to the charger housing, the locking assembly including
a locking member movable between a locked position, in which the adapter is locked to the charger housing, and an unlocked position, and
an actuating member operable to move the locking member between the locked position and the unlocked position.

19. (New) The combination as set forth in Claim 15, wherein the battery includes a battery terminal assembly, wherein the battery charger further includes a charger terminal assembly electrically connected to the charging circuit, and wherein the adapter includes an adapter electrical assembly including
a first adapter terminal assembly electrically connectable to the battery terminal assembly, and
a second adapter terminal assembly electrically connectable to the charger terminal assembly to electrically connect the battery to the charging circuit to selectively transfer power between the battery and the charging circuit.

20. (New) The combination as set forth in Claim 19, wherein the battery terminal assembly is supported on the insertion portion of the battery, and wherein the first adapter terminal assembly is supported in the opening defined by the adapter housing.

21. (New) A combination for charging a power tool battery, the combination comprising:

a battery charger including a charger housing and a charging circuit supported by the charger housing and selectively electrically connectable with a power source, the charger housing defining a charger opening;

a battery electrically connectable with the charging circuit such that the charging circuit selectively supplies power to the battery to charge the battery, the battery including a battery insertion portion; and

an adapter separate from and connectable between the charger housing and the battery to support the battery on the charger housing and to electrically connect the battery with the charging circuit;

wherein the adapter is configured as a sleeve member insertable between an outer surface of the battery insertion portion and an inner surface of the charger opening to connect the battery to the battery charger.

22. (New) The combination as set forth in Claim 21, wherein the charger opening extends along an opening axis, the sleeve member being insertable into the charger opening along the opening axis, and wherein the battery insertion portion is insertable within the sleeve member along a battery attachment axis generally parallel to the opening axis.

23. (New) The combination as set forth in Claim 21 and further comprising a locking assembly for locking the battery to the adapter, the locking assembly including

a locking member movable between a locked position, in which the battery is locked to the adapter, and an unlocked position, and

an actuating member operable to move the locking member between the locked position and the unlocked position.

24. (New) The combination as set forth in Claim 21 and further comprising a locking assembly for locking the adapter to the charger housing, the locking assembly including
a locking member movable between a locked position, in which the adapter is locked to the charger housing, and an unlocked position, and
an actuating member operable to move the locking member between the locked position and the unlocked position.

25. (New) The combination as set forth in Claim 21, wherein the battery includes a battery terminal assembly, wherein the battery charger further includes a charger terminal assembly electrically connected to the charging circuit, and wherein the adapter includes an adapter electrical assembly including
a first adapter terminal assembly electrically connectable to the battery terminal assembly, and
a second adapter terminal assembly electrically connectable to the charger terminal assembly to electrically connect the battery to the charging circuit to selectively transfer power between the battery and the charging circuit.

26. (New) The combination as set forth in Claim 21, wherein the battery terminal assembly is supported on the battery insertion portion, and wherein the first adapter terminal assembly is supported in an opening defined by the adapter housing.

27. (New) The combination as set forth in Claim 21, wherein the adapter has an inner surface and an outer surface, and wherein the inner surface of the adapter is complementary to and engageable with the outer surface of the battery insertion portion and the outer surface of the adapter is complementary to and engageable with the inner surface of the charger opening.

28. (New) An adapter for use with an electrical component and a battery, the electrical component including a component housing, the battery being electrically connectable to the electrical component to transfer power between the electrical component and the battery, the battery defining a battery insertion portion, the adapter comprising:

an adapter housing separate from and connectable between the battery and the component housing to support the battery on the component housing; and

an adapter electrical assembly electrically connectable between the electrical component and the battery to selectively transfer power between the electrical component and the battery;

wherein the component housing defines a component projection and a component groove, and wherein the adapter housing includes an adapter projection and an adapter groove, the component projection being engageable with the adapter groove and the adapter projection being engageable with the component groove to support the adapter on the component housing along an adapter attachment axis; and

wherein the adapter housing further includes an adapter opening defining an opening axis generally parallel with the adapter attachment axis, the battery insertion portion being insertable into the adapter opening along the opening axis to connect the battery to the adapter housing.

29. (New) The adapter as set forth in Claim 28, wherein the battery includes a battery terminal assembly, wherein the electrical component further includes a component terminal assembly electrically connected to the electrical component, and wherein the adapter electrical assembly includes

a first adapter terminal assembly electrically connectable to the battery terminal assembly, and

a second adapter terminal assembly electrically connectable to the component terminal assembly to electrically connect the battery to the electrical component.

30. (New) The adapter as set forth in Claim 28 and further comprising a locking assembly for locking the battery to the adapter, the locking assembly including
a locking member movable between a locked position, in which the battery is locked to the adapter, and an unlocked position, and
an actuating member operable to move the locking member between the locked position and the unlocked position.

31. (New) The adapter as set forth in Claim 28 and further comprising a locking assembly for locking the adapter to the component housing, the locking assembly including
a locking member movable between a locked position, in which the adapter is locked to the component housing, and an unlocked position, and
an actuating member operable to move the locking member between the locked position and the unlocked position.

32. (New) The adapter as set forth in Claim 28, wherein the electrical component is a power tool including a tool housing and a motor supported by the housing, wherein the battery is electrically connectable with the motor to selectively supply power to the motor, and wherein the adapter is connectable between the tool housing and the battery to support the battery on the tool housing.

33. (New) The adapter as set forth in Claim 28, wherein the electrical component is a battery charger including a charger housing and a charging circuit electrically connectable to a power source, wherein the charging circuit is electrically connectable with the battery to selectively supply power to the battery to charge the battery, and wherein the adapter is connectable between the charger housing and the battery to support the battery on the charger housing.

34. (New) An adapter for use with a battery charger and a battery, the battery charger including a charger housing defining a charger opening, the battery being electrically connectable to the battery charger to transfer power between the battery charger and the battery, the battery defining a battery insertion portion not compatible with the charger opening, the adapter comprising:

an adapter housing separate from and connectable between the battery and the charger housing to support the battery on the charger housing; and

an adapter electrical assembly electrically connectable between the battery charger and the battery to selectively transfer power between the battery charger and the battery;

wherein the adapter is configured as a sleeve member insertable between an outer surface of the battery insertion portion and an inner surface of the charger opening to connect the battery to the battery charger.

35. (New) The adapter as set forth in Claim 34, wherein the charger opening extends along an opening axis, the sleeve member being insertable into the charger opening along the opening axis, and wherein the battery insertion portion is insertable within the sleeve member along a battery attachment axis generally parallel to the opening axis.

36. (New) The adapter as set forth in Claim 34 and further comprising a locking assembly for locking the battery to the adapter, the locking assembly including

a locking member movable between a locked position, in which the battery is locked to the adapter, and an unlocked position, and

an actuating member operable to move the locking member between the locked position and the unlocked position.

37. (New) The adapter as set forth in Claim 34 and further comprising a locking assembly for locking the adapter to the charger housing, the locking assembly including

a locking member movable between a locked position, in which the adapter is locked to the charger housing, and an unlocked position, and

an actuating member operable to move the locking member between the locked position and the unlocked position.

38. (New) The adapter as set forth in Claim 34, wherein the battery includes a battery terminal assembly, wherein the battery charger further includes a charger terminal assembly electrically connected to a charging circuit, and wherein the adapter includes an adapter electrical assembly including

a first adapter terminal assembly electrically connectable to the battery terminal assembly, and

a second adapter terminal assembly electrically connectable to the charger terminal assembly to electrically connect the battery to the charging circuit to selectively transfer power between the battery and the charging circuit.

39. (New) The adapter as set forth in Claim 34, wherein the battery terminal assembly is supported on the battery insertion portion, and wherein the first adapter terminal assembly is supported in an opening defined by the adapter housing.

40. (New) The adapter as set forth in Claim 34, wherein the adapter housing has an inner surface and an outer surface, and wherein the inner surface of the adapter housing is complementary to and engageable with the outer surface of the battery insertion portion and the outer surface of the adapter housing is complementary to and engageable with the inner surface of the charger opening.

41. (New) An adapter for use with an electrical component and a battery, the electrical component including a component housing, the component housing including a component support portion, the battery being electrically connectable to the electrical component to transfer power between the electrical component and the battery, the battery defining a battery insertion portion, the adapter comprising:

an adapter housing separate from and connectable between the battery and the component housing to support the battery on the component housing; and

an adapter electrical assembly electrically connectable between the electrical component and the battery to selectively transfer power between the electrical component and the battery;

wherein the adapter housing defines an opening, the insertion portion being insertable into the opening along an opening axis to support the battery on the adapter; and

wherein the adapter housing further includes an adapter support portion connectable to the component support portion along an adapter attachment axis, the opening axis being generally parallel with the adapter attachment axis.

42. (New) A method of assembling an electrical combination, the electrical combination including a tower-style power tool configured to receive a tower-style battery in a tool opening, a slide-on battery including a battery support portion, and an adapter separate from and connectable between the tower-style power tool and the slide-on battery to support the slide-on battery on the tower-style power tool and to electrically connect the slide-on battery with the tower-style power tool, the adapter including an insertion portion compatible with the tool opening and an adapter support portion compatible with the battery support portion, the method comprising the acts of:

engaging the adapter support portion and the battery support portion to support the slide-on battery on the adapter; and

inserting the insertion portion into the tool opening to support the adapter on the tower-style power tool.

43. (New) The method as set forth in Claim 42, wherein engaging the adapter support portion and battery support portion includes

engaging an adapter projection and a battery groove, and

engaging a battery projection and an adapter groove.

44. (New) A method of assembling an electrical combination, the electrical combination including a tower-style battery charger configured to receive a tower-style battery in a charger opening, a slide-on battery including a battery support portion, and an adapter separate from and connectable between the tower-style battery charger and the slide-on battery to support the slide-on battery on the tower-style battery charger and to electrically connect the slide-on battery with the tower-style battery charger, the adapter including an insertion portion compatible with the charger opening and an adapter support portion compatible with the battery support portion, the method comprising the acts of:

engaging the adapter support portion and the battery support portion to support the slide-on battery on the adapter; and

inserting the insertion portion into the charger opening to support the adapter on the tower-style battery charger.

45. (New) The method as set forth in Claim 44, wherein engaging the adapter support portion and battery support portion includes

engaging an adapter projection and a battery groove, and

engaging a battery projection and an adapter groove.

46. (New) A method of assembling an electrical combination, the electrical combination including a slide-on battery charger configured to receive a slide-on battery, the slide-on battery charger defining a charger support portion, a tower-style battery including an insertion portion, and an adapter separate from and connectable between the slide-on battery charger and the tower-style battery to support the tower-style battery on the slide-on battery charger and to electrically connect the tower-style battery with the slide-on battery charger, the adapter defining an opening along an opening axis, the adapter further including an adapter support portion, the method comprising the acts of:

inserting the insertion portion of the tower-style battery in the opening of the adapter to support the tower-style battery on the adapter; and

engaging the adapter support portion and the charger support portion to support the adapter on the slide-on battery charger.

47. (New) The method as set forth in Claim 46, wherein the charger support portion includes a charger projection and a charger groove, wherein the adapter support portion includes an adapter projection and an adapter groove, and wherein the act of engaging the adapter support portion and the charger support portion includes the act of engaging the charger projection with the adapter groove and the adapter projection with the charger groove.

48. (New) A method of assembling an electrical combination, the electrical combination including a tower-style power tool configured to receive a tower-style battery in a tool opening, the tower-style battery having a first battery insertion portion, a tower-style battery including a second battery insertion portion different than the first battery insertion portion, and an adapter separate from and connectable between the tower-style power tool and the tower-style battery to support the tower-style battery on the tower-style power tool and to electrically connect the tower-style battery with the tower-style power tool, the adapter including an adapter housing configured as a sleeve member defining an inner surface and an outer surface, the inner surface of the sleeve member being shaped to receive the second battery insertion portion of the tower-style battery, and the outer surface of the sleeve member being shaped like the first battery insertion portion for insertion into the tool opening to connect the tower-style battery to the tower-style power tool, the method comprising the acts of:

inserting the first battery insertion portion of the tower-style battery into the sleeve member to support the tower-style battery on the sleeve member; and

inserting the sleeve member into the tool opening to support the sleeve member on the tower-style power tool.

49. (New) A method of assembling an electrical combination, the electrical combination including a tower-style battery charger configured to receive a tower-style battery in a charger opening, the tower-style battery having a first battery insertion portion, a tower-style battery including a second battery insertion portion different than the first battery insertion portion, and an adapter separate from and connectable between the tower-style battery charger and the tower-style battery to support the tower-style battery on the tower-style batter charger and to electrically connect the tower-style battery with the tower-style battery charger, the adapter including an adapter housing configured as a sleeve member defining an inner surface and an outer surface, the inner surface of the sleeve member being shaped to receive the second battery insertion portion of the tower-style battery, and the outer surface of the sleeve member being shaped like the first battery insertion portion for insertion into the charger opening to connect the tower-style battery to the tower-style battery charger, the method comprising the acts of:

inserting the first battery insertion portion of the tower-style battery into the sleeve member to support the tower-style battery on the sleeve member; and

inserting the sleeve member into the charger opening to support the sleeve member on the tower-style battery charger.

50. (New) A method of assembling an electrical combination, the electrical combination including a power tool including a tool housing having a tool support portion configured to receive a battery, a tower-style battery including an insertion portion, and an adapter separate from and connectable between the power tool and the tower-style battery to support the tower-style battery on the power tool and to electrically connect the tower-style battery with the power tool, the adapter defining an opening along an opening axis, the adapter further including an adapter support portion, the method comprising the acts of:

engaging, along an insertion axis, the insertion portion of the tower-style battery in the opening in the adapter to support the tower-style battery on the adapter; and

engaging, along an attachment axis generally parallel to the insertion axis, the adapter support portion with the tool support portion to support the adapter on the power tool.

51. (New) A method of assembling an electrical combination, the electrical combination including a slide-on power tool including a tool housing having a tool support portion defining a tool groove configured to receive a battery, a slide-on style battery including a battery support portion defining a battery groove, the battery groove not being connectable with the tool groove, and an adapter separate from and connectable between the slide-on power tool and the slide-on style battery to support the otherwise incompatible battery on the power tool and to electrically connect the slide-on style battery with the slide-on power tool, the adapter defining a first connecting portion having a first adapter slide-on support portion having a first adapter projection, and a second connecting portion having a second adapter slide-on support portion having a second adapter projection, the method comprising the acts of:

engaging the first adapter projection with the battery groove to connect the adapter to the battery; and

engaging the second adapter projection with the tool groove to connect the adapter to the tool.